

THE WESTERN PENNSYLVANIA HOSPITAL
INSTITUTE OF PATHOLOGY

PITTSBURGH, PENN'A



December 11, 1946

Dr. Joshua Lederberg
Osborn Botanical Laboratory
Yale University
New Haven, Connecticut

Dear Dr. Lederberg:

I have examined rather carefully your K-12 culture of *B. coli*, which you were kind enough to give me during my recent visit to Yale. So far, I have not been able to find anything in the culture that even resembles the bodies that we spoke of as zygospore-like. Sometimes these may appear under unusual cultural conditions, and I am using now a couple of different media to see if anything suggestive turns up. If it does, I shall let you know.

I enjoyed very much reading the reprints you gave me that day, and it does appear certainly that you have the biochemical and genetic equivalent of the sexual process, because, as Dr. Tatum pointedly remarked, as long as you can get re-combination of genes, that is about all that you could hope for from the sex process itself.

In my Microbic Heredity paper Number 3, page 140, it is of interest that true "stalked" zygospore-like structures occurred when the coccoid-phase of the coli organism was grown in a sterile filtrate of the coli-communior. This recalls the Dienes effect with his proteus strains.

I checked the September, 1945 JOURNAL OF BACTERIOLOGY reference and find nothing there that accords with the zygospore-like bodies. Their Figure I I would call chlamydospore-like. The simple fusiform enlargements may possibly be an initial stage of the former.

With my kindest regards to you both, and with best wishes for the continued fruition of your most interesting studies, I am

Sincerely yours,

Ralph R. Mellon, M. D.

Director, Institute of Pathology

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